ARMSTRONG, TRASDALE, SCHLAFLY, DAVIS & DIGUS

ATTORNEYS AND GOUNSELORS ONE METROPOLITAN SQUARE St. Louis, Missouri 63102-2740 (314) 621-5070

TELECOPIES (314) 621-5065

George M. von Stamwitz (314) 342-8017 EANSAS CITY, MISSOURI BRILEVILLE, ILLINOIS OVERLAND PARK, EANSAS

August 31, 1990

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Brad Bradley (5HS-11)
United States Environmental
Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604

RE: NL Industries/Taracorp Site
Granite City, Illinois
Response to Special Notice Letter by St. Louis Lead
Recyclers

Dear Mr. Bradley:

This correspondence will formally respond to USEPA's Special Notice Letter dated June 25, 1990, on behalf of St. Louis Lead Recyclers ("SLLR"). The statements and commitments in this letter are made only for purposes of seeking a settlement and do not constitute an admission of liability for the remediation at the NL/Taracorp Site ("Site").

As explained in detail in SLLR's response to the \$104(e) request, SLLR did not generate any waste designated for the NL/Taracorp Site within the meaning of CERCLA. Rather, SLLR was hired by Taracorp to recycle the pile. All of the material handled by SLLR originated from the pile itself; there was no other source of lead bearing materials to SLLR's process other than the NL/Taracorp pile. SLLR's process ran for approximately one year when it ceased because of Taracorp's bankruptcy proceeding.

SLLR's process separated material from the NL/Taracorp Pile into five components: metallic grid lead, lead oxide paste, plastic case material, hard rubber case material and slag and other trash. Material was given back to Taracorp in three forms pursuant to the tolling contract: metallic lead blocks (approximately 2,000 pounds each) lead oxide paste which was returned to Taracorp for the production of lead products; slag and trash materials, which were screened out of SLLR's process were

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returned to the Pile. In essence, SLLR's process was a closed circular stream of material from the NL/Taracorp Pile back to Taracorp in the form of product and slag. In short, SLLR reduced the amount of waste to be remediated at the Site.

SLLR's role at the Site as a recycler supports a resolution of its potential liability independent from the other PRPs. The only impact on the Site caused by SLLR is the movement of waste from the large pile to the smaller rubber chip pile and the removal of lead from those wastes. As such, SLLR's involvement at the NL/Taracorp Site is clearly divisible. SLLR is not a PRP for the larger pile or for wastes that went into NL's or Taracorp's process. Accordingly SLLR does not face the prospect of joint and several liability at the Site. See United States v. Chembyre, 572 F.Supp. 802 (S.D. Ohio 1983) ("If the harm is divisible and if there is a reasonable basis for apportionment of damages, each defendant is liable only for the portion of harm he himself caused." Id. at 811).

While the generators and owners/operators, whose hazardous waste created the NL/Taracorp pile was transshipped to SLLR, are strictly liable for the rubber chip pile as generators, SLLR, in a good faith effort to resolve its liability at the NL/Taracorp Site, is prepared to assume responsibility in the first instance for addressing the wastes located at the former SLLR facility; that is, address the divisible portion of the total Site which is linked to SLLR. In general, SLLR is prepared to excavate the rubber chip pile, combine this material with the NL/Taracorp pile and excavate soil beneath and around the rubber chip pile to the depth of six (6) inches. The activities SLLR is prepared to undertake are described in more detail below and in the attached Statement of Work.

SLLR has elected not to join the Group of generators which has been formed to respond to EPA's Special Notice Letter. SLLR was erroneously listed as the seventeenth (17) largest generator of the NL/Taracorp pile on the Waste-In List notwithstanding the fact that SLLR was not a generator at all. Due to time constraints, the Group has not been willing to resolve SLLR's status before the Group responds to the Special Notice Letter and thus, the Group demanded a proportional financial commitment from SLLR far in excess of SLLR's exposure.

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The following commitments, together with the attachments to this letter, constitutes SLLR's Good Faith Offer for performing portions of RD/RA which are related to SLLRs divisible involvement at the Site:

- 1. SLLR is willing to excavate the rubber chip pile located on Trust 454 property and any soil directly beneath or around the rubber chip pile impacted by the pile to the depth of six (6) inches, and remove such excavated material to the NL/Taracorp pile.
 - 2. As indicated previously, SLLR's involvement at the NL/Taracorp Site is clearly divisible from the owners/ operators and generators of the NL/Taracorp pile; therefore, SLLR proposes only to deal with that portion of the Record of Decision which involves the rubber chip pile. The ROD contains numerous inaccuracies regarding the rubber chip pile and as does the RI/FS documents drafted by NL. SLLR submitted comments to the Proposed Plan to correct these inaccuracies. A copy of these comments is attached as Exhibit A.
 - 3. A Statement of Work is attached hereto as Exhibit B. This document identifies how SLLR plans to proceed with the Work. SLLR will develop in conjunction with USEPA a more detailed statement of work for purposes of the final consent decree.
 - 4. SLLR has the technical capacity to undertake the RD/RA. SLLR has retained Dames & Moore as its consultant for this matter.
 - 5. Upon acceptance of this offer, SLLR will negotiate a financial assurance provision in the Consent Decree providing for either a letter of credit, third-party guarantee, a performance bond or a financial test.
 - 6. SLLR is willing to enter into a reasonable agreement with USEPA regarding direct oversight costs for that portion of the response at the NL/Taracorp Site to be conducted by SLLR.

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7. SLLR will be represented in these negotiations on legal issues by:

George M. von Stamwitz, Esq. Armstrong, Teasdale, Schlafly, Davis & Dicus One Metropolitan Square, Suite 2600 St. Louis, Missouri 63102-2740 (314) 621-5070; and

on technical issues by:

Neal Jost
Dames & Moore
11701 Borman Drive, Suite 340
St. Louis, Missouri 63146
(314) 993-4599

8. SLLR's willingness to perform the remedy is conditioned upon the receipt of the broadest release from liability allowed by law, and a commitment by USEPA and IEPA that the performance of the remedy satisfies all the requirements of other state and federal programs which have, or potentially have, jurisdiction over the rubber chip pile.

We look forward to initiating negotiations on a consent decree and promptly resolving the issues relating to SLLR's involvement at this Site. If you have any questions or comments about the position of SLLR, please contact me.

George M von Stamwitz

for: St. Louis Lead Recyclers

GMS: kb

cc: Andrew R. Leeper, Esq.
Stephen E. McAllister
Neal Jost



11701 BORMAN DRIVE, SUITE 340, ST. LOUIS, MISSOURI 63146 (314) 993-4599, FAX NO. (314) 993-4895

March 12, 1990

Ms. Mary Ann Croce LaFaire Community Relations Coordinator U.S. EPA (5PA-14) 230 South Dearborn Street Chicago, IL 60604

> RE: ML Industries/Taracorp Site-Comments of St. Louis Lead Recyclers ("SLLR") to Draft Feasibility Study and Proposed Plan

Dear Ms. LaFaire:

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We have reviewed the Draft Feasibility Study for the Taracorp Site in Granite City, Illinois, dated August 1989, the Addendum to the Draft Feasibility Study Report, dated January 10, 1990, the U.S. EPA's Proposal Plan for the NL Industries/Taracorp Site, Granite City, Illinois, dated January 10, 1990. SLLR would like to comment on several errors contained in these documents. Our comments are enclosed as Attachment A. Please include these comments in the Administrative Record.

Should you have any questions or require further information, please do not hesitate to contact me.

Very truly yours,

DAMES & MOORE A Professional Limited Partnership

Neil J. Jost, P.E.

Associate

njj/ket Enclosure

cc: Steven McAllister, Galena Industries Jim Stack, Galena Industries George von Stamwitz, Esq. Donald J. Harvey, Dames & Moore

ATTACHMENT A

St. Louis Lead Recyclers
Comments on Documents
Related to NL Industries/
Taracorp Site, Granite City, Illinois

U.S. EPA Proposed Plan

1. Page 2, Paragraph 2, Sentences 1 and 3

Although St. Louis Lead Recyclers (SLLR) leased the building from Trust 454 and begin installing equipment in August, 1980, and accepted limited quantities of waste pile material starting in July 1981 for process development purposes, SLLR did not start full-scale recycling of lead waste from the Taracorp pile until April, 1982; SLLR shut down all operations due to a contractual dispute with Taracorp on March 21, 1983.

2. Page 3, Paragraph 3, Sentences 3 and 4

The volumes and lead content of the piles on Trust 454 property are incorrect. A recent survey conducted for SLLR by SMS Engineers (See Exhibit 1) found that there are 3,640 cubic yards of rubber chips and 416 cubic yards of slag and mattes on Trust 454 property. Samples of the rubber chips, slags, and matte were analyzed for EP Toxic and total metals. In addition, a sample of each material was analyzed for the TCCP list of parameters, reactivity, and corrosivity. The total lead content of the battery chips varied from one percent to four percent. The slag and matte continued from four to fifteen percent and 0.3 to 0.35 percent respectively (see Exhibit 2, Table 1 for a summary of the analytical results). The lead content in these results are an order of magnitude lower than the results reported in the Proposed Plan as well as the RI and FS reports.

3. Page 3, Paragraph 5, Sentences 3 and 5

Same as comment number 2. In addition, the unpaved area is reported as having a surface lead concentration of 9,250 mg/kg. This is a misleading statement implying that the lead content of surface soil throughout the Trust 454 property is 9,250 mg/kg. However, since the soil sample that contained that high concentration was collected near the edge of rubber chip pile 3, it should not be used to reflect the lead content of Trust 454 surface soil as a whole. As our sampling results indicate the lead content of the surface soils on Trust 454 property (SS-1 through SS-4) (See Exhibits 2, Tables 1 and 2) varies from about 1,000 ppm in the southeast corner of the site to 9,540 ppm near the rubber chip pile. In addition, the

found to increase and decrease with depth (See Exhibit 2, Table 3). Four excavations (EX-1 through EX-4) were sampled on Trust 454 property. One of these excavations revealed an 18-inch thick layer of broken battery casing and slag material. Also, the results indicate that although the lead content tends to vary with depth and some increase with depth is observed, it rapidly and uniformly falls to low levels as a clay layer is encountered at about one to two feet depth (See Exhibit 3). This initial increase in lead content could reflect historic waste disposal by previous occupants as the layer of broken battery casings found in EX-1 seems to indicate.

Feasibility Study Report

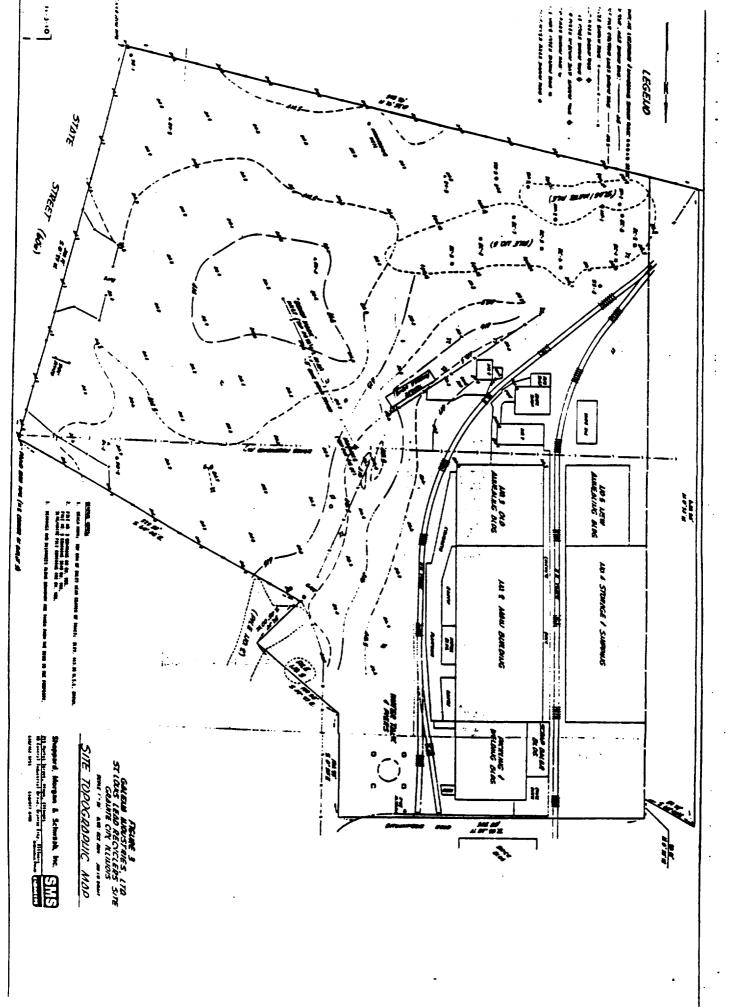
- 5. Page 5, Section I.3.3, Paragraph 2, Sentences 2 and 3
 See Comment #3.
- 6. Page 6, Section 1.3.3, Paragraph 1, Sentence 1
 See Comment #3.
- 7. Page 6, Section 1.3.3, Paragraph 1, Sentence 4

The Consent Decree signed by IEPA and SLLR required a number of actions by SLLR to control fugitive dust (including paving) upon recommencement of any lead waste recycling activity. SLLR applied asphalt material to the gravel road in compliance with the Consent Decree. However, since SLLR has not recycled any lead waste since March 1983, the asphalt has not been reapplied.

Exhibit, Page 5-30, Section 5.9, Paragraph 2, Sentence 2

See Comment #2 regarding lead content of the ebonite (rubber chips).

Exhibit 1
Site Topographic Map



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Exhibit 2
Summary of Soil and Wastepile Analyses

TABLE 1
WASTE PILE AND SOIL CHARACTERIZATION DATA - INORGANIC AMALYSES B(MG/RG)

	ss-1 (5799)	ss-1 sue (5800)	\$\$-2 (5801)	\$\$-2 SUB (5802)	\$\$-3 (5803)	ss-3 sub (5804)	\$\$-4 (5805)	\$3-4 SUB (5806)	HP-1 (5807)	MP-2 (5808)	SP-1 (5809)	SP-2 (5810)
Ag	<0.79	<0.77	Ø.82	<0.86	<0.79	<0.81 (0,106)	<0.81	<0.76	4 0.73	<0.75	40.83	1.69
As	40.8	61.2	34.3	12.5	28.2	41.0 (33.5)	219.2	346.4	<0.48	1.12	3767	2655
8a	96.1	22.1	391.0	72.8	366.0	1890 (1660)	119	533	472	368	270	559
Cď	3.7	0.29	3.0	5.0	2.7	20.2 (35.3)	5.3	7.1	54.4	17.2	223	8.8
Cr	21.5	3.7	103	11.4	18.1	2350 (359)	28.8	39.8	56.1	79.8	56.1	79.8
Hg	0.13	<0.10 (<0.10)	40.10	0.14 '	4 0.10	35.7	0.85	1.38	<0.10	€0.10 (€0.10)	0.12	Ø.10
Pb	1660	57.5	3140	28,100	1070	11,200 (13,900)	9560	16,700	2950	3460	149,000	63,800
Se	0.60	0.53	1.62		3.66	<0.51 (<0.52)	0.89				3.02	42.6
Ag (EP)	<0.050 (<0.050)	<0.050	40.050	<0.050	<0.050	<0.050	<0.050	<0.050	∢0.050	40.050	∢0.050	<0.050
As (EP)	<0.200 (<0.200)	∢0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	40.200	∢0.200	<0.200
Ba (EP)	0.701 (0.693)	<0.250	0.700	0.335	0.760	1.09	0.270	0.282	0.567	0.856	∢0.250	<0.250
Cd (EP)	(0.020) (0.020)	<0.020	0.024	0.020	<0.020	0.211	0.022	0.024	0.035	0.057	0.770	0.062
Cr (EP)	<0.001 (<0.001)	<0.001	<0.001	<0.001	<0.001	<0.001	€0.001	<0.001	<0.001	< 0.001	<0.001	<0.001

TABLE 1 (CONTINUED)
WASTE PILE AND SOIL CHARACTERIZATION DATA - INORGANIC ANALYSES B(MB/KB)

Parameter			•					
	8C-1 (5811)	BC-2 (5812)	BC-3 (5813)	BC-4 (5814)	BC-5 (5815)	BC-6 (5816)	8C-7 (5817)	BC-48 (5818)
Ag	<0.85	1.04	40.75	0.92	<0.85	<0.85	<0.85	€0.70
As	798.7	398.2	252.3	724.4	250.4	280.4 (33.5)	178.0	143.4
Bo	73.7	189	134	75.8	70.9	66.8	161	88.1
Cd	1.5	1.2	3.1	7.2	1.6	2.4	4.1	2.1
Cr	5.8	8.0	8.2	8.8	10.2	5.6	33.0	7.4
Hg	0.21	0.25	0.38	0.65	3.95	0.22	0.26	0.18
Pb	22,600	10,600	21,900	42,700	24,200	32,100	27,900	14,600
Se	Q.72	2.65	3.13	<1.93	3.30	Q .72	Q.72	Q.22
Ag (EP)	<0.050	<0.050	<0.050	40.0 50	<0.050	<0.050	<0.050	<0.050
As (EP)	<0.200	<0.200	<0.200	∢0.200	<0.200	<0.200	<0.200	40,200
Bs (EP)	<0.250	40.250	<0.250	<0.250	<0.250	<0.250	<0.250	⋖0.200
Cd (EP)	<0.020	<0.020	<0.020	∢0.020	<0.020	<0.020	<0.020	40,020
Cr (EP)	< 0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	40,001
Hg (EP)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	40.0002
Pb (EP)	70.60	49.50	0.942	46.30	28.60	123.00	76.60	27.2
Se (EP)	0.221	<0.200	<0.200	<0.200	<0.200	<0.200	∢0.200	40.200
Corrosivity	HR	HR	6.48	HR	HR	NR	HR	MR
Reactivity -	CN NR	NR	NEG	HR	NR	NR	NR	NR ·

TABLE 1 (CONTINUED)
WASTE PILE CHARACTERIZATION DATA - INORGANIC ANALYSES B(MG/MG)

Parameter

	BC-1 (5811)	BC-2 (5812)	BC-3 (5813)	BC-4 (5814)	BC-5 (5815)	BC-6 (5816)	BC-7 (5817)	BC-8 (5818)
Reactivity -	HR	MA	HEG	HR	NR	MR	NR	HR
Ag (TCLP)	HR	HR	<0.050	NR	MR	MR	NR	NR
As (TCLP)	INR	NR	<0.027	NR	HR	MR	HR	NR
Be (TCLP)	NR	NR	40.361	MR	HR	HR	HR	MR
Cd (TCLP)	MR	MR	<0.020	NR	NR	HR	HR	MR
Cr (TCLP)	NR	HR	<0.010	NR	HR	NR	HR	HR
Hg (TCLP)	NR .	MR	<0.0002 (<0.0002)	HR	NR	NR	NR	MR
Pb (TCLP)	HR	HR ,	173	NR	NR	HR	HR	HR
Se (TCLP)	HR	HR	<0.200	NR	NR	NR	NR	HR

TABLE 1 (CONTINUED)
WASTE PILE AND SOIL CHARACTERIZATION DATA - INORGANIC ANALYSES D(NG/KB)

Parameter

	\$\$-1 (5799)	\$\$-1 SUB (5800)	\$\$-2 (5801)	\$\$-2 \$UB (5802)	\$\$-3 (5803)	\$\$-3 SUB (5804)	\$\$-4 (5805)	\$\$-4 \$UB (5806)	MP-1 (5807)	HP-2 (5808)	SP-1 (5809)	SP-2 (5810)
Hg (EP)	<0.0002	<0.0002)	<0.0002	40 .0002	<0.0002	<0.0002	<0.0002	<0.0002	⋖0.0002	<0.0002	<0.0002	40.0002
Pb (EP)	0.412 (0.418)	<0.066	9.150	74.00	2.470	13.40	1.110	1.110	0.449	1.630	1,192.0	378.0
Se (EP)	<0.200 (<0.200)	<0.200	∢0.200	40.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200
Corrosivity	HR	HR	HR	HR	NR	HR	HR	7.00	9.53 (4.50)	9.46	6.75	HR
Reactivity - (Cn NR	HR	NR	HR	HR	HR	HR	NEG	NEG	NR	NEG	MR
Reactivity-S	HR	HR	HR	NR .	HR	HR	HR	NEG (NEG)	NEG	MR	NEG	NR
Ag (TCLP)	HR	NR	HR	NR	HR	NR	NR	HR	<0.050 (<0.050)	HR	40.050 0.329	NR
As (TCLP)	HR	NR	MR	NR	HR	NR	HR	NR .	<0.200 (<0.200)	HR	<0.050 0.329	HR
Ba (TCLP)	HR	NR	NR	HR	HR	NR	HR	HR	<0.250 (<0.250)	HR	40 .7746	HR
Cd (TCLP)	HR	MR	MR	HR	NR	NR	MR	HR	<0.020	MR	40.020	HR
Cr (TCLP)	HR	NR	HR	HR	HR	HR	NR	HR	(<0.020) <0.100 (<0.100)	HR	<0.100	HR
Hg (TCLP)	MR	HR	NR	HR	NR	NR	HR	HR	<0.0002	HR	<0.0002	HR
Pb (TCLP)	MR	NR	HR	HR	NR	HR	NR	HR	<0.100 (<0.100)	HR	980	HR .
Se (TCLP)	HR	NR	HR . TOLD T	HR	NR	HR	HR	NR	<0.200 (<0.201	HR .	<0.200	HR

Motes: EP = EP toxicity extraction; TCLP = TCLP extraction. () = duplicate

TABLE 2
ORGANIC RESULTS - WASTE PILE CHARACTERIZATION (TCLP)

<u>Parameter</u>	Sample Concent MP-1 (5807)	ration (PPB) SP-1 (5809)	BC-3 (5813)
Herbicides ¹			
2,4-Dichlorophoxyacetic Acid (2,4-D)	<0.17	<0.17	<0.17
2,4,5-TP Silver Pesticides	<0.043	<0.043	<0.043
Lindane Endrin Methoxychlor Toxaphene Chlordane Heptachlor	<0.003 <0.028 <0.153 <0.357 <0.071 0.025	<0.003 <0.028 2.9 <0.357 <0.071 0.008	<0.003 <0.028 <0.153 <0.357 <0.071 0.013
Bis(2-chloroethyl)ether Cresols(and cresylic acid) 1,2-Dichlorobenzene 1,4-Dichlorobenzene 2,4-Dinitrotoluene Hexachlorobenzene Hexachlorobutadiene Hexachloroethane Nitrobenzene Pentachlorophenol Phenol Pyridine 2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	DD

NOTE

ND = Not Detected

¹ Herbicides could not be run using TCLP protocol due to significant interferences. Therefore, herbicide concentrations are reported on EP Toxicity extractions.

TABLE 2

ORGANIC RESULTS - WASTE CHARACTERIZATION (TCLP)
(continued)

	Sample Concentration (PPB)				
	MP-1	SP-1	BC-3		
<u>Parameter</u>	<u>(5807)</u>	<u>(5809)</u>	<u>(5813)</u>		
Volatile Compounds					
Acrylonitrile	ND	ND	ND		
Benzene	ND	10.85	ND		
Carbon Disulfide	ND	ND	ND		
Carbon Tetrachloride	ND	ND	ND		
Chlorobenzene -	ND	ND	ND		
Chloroform	ND	4.21	ND		
1,2-Dichloroethane	ND	ND	ND		
1,1-Dichloroethylene	ND	ND	ND		
Isobutanol	ND	ND	ND		
Methylene Chloride	12.74	14.93	3.49		
Methyl ethyl ketone	ND	ND	ND		
1,1,1,2-Tetrachloroethane	ND	ND	ND		
1,1,2,2-Tetrachloroethane	ND	ND	ND		
Tetrachloroethylene	1.93	5.55	ND		
Toluene	25.47	55.94	4.42		
1,1,1-Trichloroethane	ND	ND	ND		
1,1,2-Trichloroethane	ND	ND	ND		
Trichloroethylene	ND	3.93	ND		
Vinyl Chloride	ND	ND	ND		

NOTE:

ND = Not Detected

TABLE 3
SUMMARY OF EXCAVATION ANALYTICAL RESULTS

Site Identification	Depth of Sample	Total Lead Concentration (mg/kg) ¹
EX1	0"	3,310
EX1	18"	57,4 00
EX1	24*	701
EX1	36"	1,660
EX2	0"	988
EX2	_ 12*	<11.4
EX2	18*	50.9
EX3	0-	8,880
EX3	12*	15,000
EX3	18*	<17.2
EX4	0-	2,200 (1,750)
EX4	12*	1,220
EX4	18*	11.9

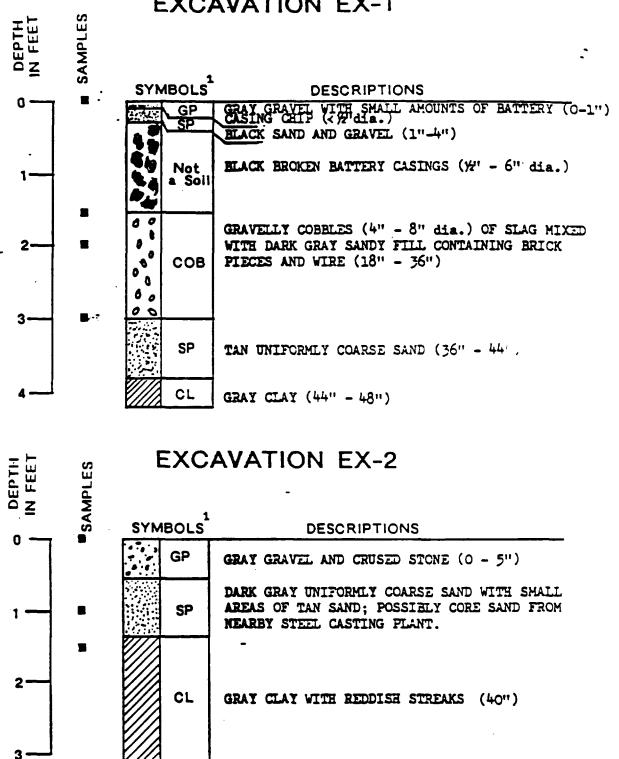
Notes:

 $[\]frac{1}{m}g/kg = ppm$ () = duplicate

Exhibit 3

Excavation Logs

EXCAVATION EX-1



- United Soil Classification System
- Samples collected with clean trowels from face of excavation.

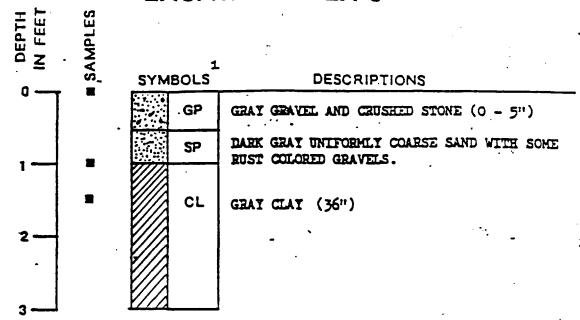
FIGURE 1A

EXCAVATION LOGS

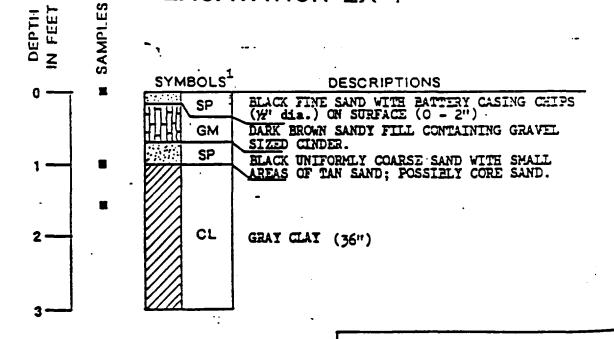
ST. LOUIS LEAD RECYCLERS Granite City, Illinois

Dames & Moore

EXCAVATION EX-3



EXCAVATION EX-4



- ¹ United Soil Classification System
- S Samples collected with clean trowels from face of excavation.

FIGURE 1B

EXCAVATION LOGS

ST. LOUIS LEAD RECYCLERS
Granite City, Illinois

Dames & Moor

11701 BORMAN DRIVE, SUITE 340, ST. LOUIS, MISSOURI 63146 (314) 993-4599 FAX NO. (314) 993-4895

August 31, 1990

Mr. George Von Stamwitz Armstrong, Teasdale, Schlafly, Davis & Dicus 611 Olive Street, Suite 1900 St. Louis, MO 63101

RE: Comments on the Response to Special Notice Letter to USEPA and Scope of Work

Dames & Moore Job Number: 19076-003-045

Dear George:

Herewith are the Statement of Work and comments on the subject letter. The activities described in the Statement of Work can be summarized as follows:

- o Removal of the rubber chip, slag, and matte waste piles from the Trust 454 property and consolidation into the NL/Taracorp pile.
- Excavation of the top six inches of soil from underneath the rubber chip, slag, and matte waste piles including a 10-foot buffer zone and area between the piles and the SLLR facility entranceway. Replacement with clean fill or gravel.
- o Preparation of work plans including health and safety plan.
- Air monitoring during remedial activities for worker and community health and safety.
- Oversight of contractor and preparation of final report.

We estimate that the remedial action described above will cost approximately \$84,000.

Also, per your request, we estimate that effect of SLLR's recycling activities and the proposed remedial action will slightly decrease the overall volume of the large wastepile. We compared estimates of the amount of recycled material to the volume of soil proposed for excavation. Approximately 2025 yd³ of lead, lead oxide and plastic were removed from the large wastepile and recycled. This compares to approximately 750 yd³ of soil to be excavated.

From Jim Stack's observations, as much as 8300 yd³ of pile material (unexpanded from transport) was removed from the Taracorp pile. We believe milling and recycling reduced this volume significantly, but it is difficult to quantify. The total volume of material (waste pile and excavated soil) to be returned to the Taracorp pile under this scenario is 4810 yd³.

Mr. George Von Stamwitz
Armstrong, Teasdale, Schlafly, Davis & Dicus
August 31, 1990
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Consistent with the enclosed Statement of Work we also recommend the following modification to your draft letter to USEPA dated August 22, 1990:

We recommend adding at the end of paragraph 3 that it is estimated that up to 95% of the lead was removed from the material taken from the NL/Taracorp pile.

We recommend modifying paragraph 6 to indicate that the top six inches of soil will be excavated and consolidated (along with the chip, matte and slag piles) with the NL/Taracorp wastepile. It should be also noted here that although the ROD calls for excavation of any soil (in Area 1) with a lead content above 1000 ppm, SLLR believes that for various reasons related to limited SLLR activities at the Site (listed below) that the major source of lead in Site soils is the former smelter operations and that SLLR's contribution to lead in soils in minimal. For this reason removal of the top six inches of soil is a fair contribution by SLLR to the overall remedy at the Site.

Although there are no data that we are aware of that would allow us to quantify SLLR's contribution to the lead observed in soils, there are several reasons for concluding that SLLR's contribution to lead in Site soils was minimal; these include:

- 1. Excavation of soils at the Trust 454 property (see February 22, 1990 RCRA Closure Plan) indicates the smelter activities reached into the Trust 454 property as evidenced by the presence of an 18-inch layer of broken battery casings, grid lead and slag pieces found on the property. The extent of this layer of debris is unknown. Information describing the full scope of past NL activities on what is now Trust 454 property is unavailable.
- 2. We believe smelter "fallout" or deposition resulting from airborne sugitive or point source emissions from the smelter and related operations contributed to substantial surface and subsurface soil contamination at the site and in residential areas bordering the Taracorp/NL facility; the result of over 90 years of NL/Taracorp operations. SLLR's "outside" activities, including transport and sorting of the wastepile material and cleaned rubber chips, had limited impact because such activities were of very brief duration, compared to smelter activities (one year versus 90 years of operation, respectively).
- 3. The lead remaining on the rubber chips in the chip pile would not be leached in significant quantities by rainfall since the most of the leachable lead has already been removed through SLLR's battery waste recycling process includes rigorous contact with proprietary cleaning solutions. It is estimated that as much as 95% of the lead from the wastepile material was removed and recycled.

For these supporting reasons, then, a restoration of the site so its pre-SLLR condition entailing soil removal should be satisfactory to EPA that SLLR has made a substantial contribution to countering its actions during the time of operation.

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Should you have any questions or require further information, please do not hesitate to contact me.

Very truly yours,

DAMES & MOORE
A Professional Limited Partnership

Neil J. Jost Associate

NJJ/ken [njj/vons0828.ltr]



EXHIBIT B

ST. LOUIS LEAD RECYCLERS' STATEMENT OF WORK

1.0 Introduction

This Statement of Work (SOW) describes in general terms the activities for remediating certain lead-bearing materials proposed by St. Louis Lead Recyclers (SLLR) for the NL/Taracorp site located in Granite City, Illinois.

2.0 Background

The SLLR facility operated between May 1982 and March 1983 as a recycler of lead from the adjacent NL/Taracorp slag/battery waste pile. This waste pile was place on the National Priorities List of Superfund Sites on June 10, 1986. The Record of Decision for the NL/Taracorp Site was issued by USEPA in January 1990. This ROD called for the excavation of lead-contaminated materials and consolidation with the NL/Taracorp waste pile under an impermeable cover. This SOW was developed using this remedy as a basis.

SLLR removed approximately 11,000 tons of material from the Taracorp/NL Industries waste pile, and returned about 5,400 tons as unrecyclable slag, matte and trash. The remaining 5600 tons was then processed by SLLR which returned approximately 230 tons of elemental lead and 2800 tons of lead oxide (a generic term that refers to a mixture primarily composed of lead dioxide and lead sulfate). It is estimated that as much as 95% of the lead was removed from the processed material.

The hard rubber chips that exited the SLLR process were accumulated over the approximately seven (7) months of operation in a pile placed on Trust 454 property (see Figure 3). Recent measurements by a surveyor indicated that there are 3640 cubic yards of rubber chips and 416 cubic yards of slag and matte.

3.0 Proposed Action

It is proposed to remove the rubber chip, slag, and matte waste piles from the Trust 454 property and consolidate them into the NL/Taracorp pile. The top six inches of soil will be removed from underneath the rubber chip, slag, and matte waste piles including a 10-foot buffer zone, and an area between the piles and the SLLR facility's west entrance. Approximately 750 yd³ of soil will be excavated. The excavated areas will be backfilled with clean soil and reseeded. Dust control measures and air monitoring will be implemented during the excavation to ensure worker and community health and safety.

A detailed work plan including health and safety plan will be prepared.

All construction work will be overseen by an independent engineer who will prepare of final report.